

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 (Currently amended). An isolated polypeptide, which associates with TrkA and p75 neurotrophin receptors, is a target for phosphorylation by neurotrophin and ephrin receptor tyrosine kinases, enhances neurotransmitter release, and modulates the clustering of proteins involved in ion channel formation, comprising the amino acid sequence of:

(A) SEQ ID NO:2;

(B) SEQ ID NO:4;

(C) a fragment of the polypeptide of SEQ ID NO:2;

(D) a fragment of the polypeptide of SEQ ID NO:4; or

(E) a functional derivative or a salt of (A), (B), (C),

or (D), said functional derivative being a chemical derivative that is derivatized at functional groups which occur as side chains on amino acid residues or as the N- or C-terminal groups,

wherein said fragments (C) and (D) and said functional derivatives or salt (E) have the properties of associating with TrkA and p75 neurotrophin receptors, being a target for phosphorylation by neurotrophin and ephrin receptor tyrosine kinase, enhancing neurotransmitter release, and modulating the clustering of proteins involved in ion channel formation.

2(Original). The polypeptide of claim 1, which comprises the amino acid sequence of SEQ ID NO:2.

3(Original). The polypeptide of claim 1, which comprises the amino acid sequence of SEQ ID NO:4.

4(Original). The polypeptide of claim 1, which comprises the amino acid sequence of fragment (C).

5(Original). The polypeptide of claim 4, wherein said fragment (C) either further contains one or more transmembrane domains of the polypeptide of SEQ ID NO:2 or is fused to a transmembrane domain to form a fusion polypeptide.

6(Original). The polypeptide of claim 1, which comprises the amino acid sequence of fragment (D).

7(Original). The polypeptide of claim 6, wherein said fragment (D) either further contains one or more transmembrane domain of the polypeptide of SEQ ID NO:4 or is fused to a transmembrane domain to form a fusion polypeptide.

Claims 8-35 (Cancelled)